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NEW SPECIES OF STENOTREMA AND PARAVITREA FROM ALABAMA.

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VITREA (PARAVITREA) ALDRICHIANA n. sp. Pl. V, figs. 8, 9, 10, 11.

Shell small, widely, perspectively umbilicate, flattened, slightly convex above and below, the periphery well rounded; greenish-white almost transparent, highly polished with very faint growth lines and on the body-whorl a few impressed lines spaced irregularly. Whorls five, those of the spire rounded at the well-impressed suture; umbilicus contained about three times in the diameter of the shell and showing all of the volutions; peristome forming two-thirds of a circle; lip simple.

Slightly below the periphery, and in the last half of the body whorl are about four teeth which are longer, vertically, than wide, and, apparently, project at both the upper and lower ends; i. e., they are double pointed.

Greater diam. 2, lesser 1.9, alt. 1 mm.

Type from the slope of the Cumberland Plateau in Jackson County, Ala., close to the state line, and about 2 miles S. E. of Anderson, Tenn. Collected by Herbert H. Smith, who found but four specimens of this excessively rare species, the others being from "Buck Creek Cove," Franklin County, Tenn., "Cove in Valley of Little Crow Creek," and "Bennett's Cove, near State Line," both Jackson County, Ala.

These four localities are near together on the Cumberland Plateau, and along the Tenn.-Ala. boundary.

It is interesting to note that Mr. Smith collected both V. multi-

dentata and lamellidens in the same general locality, although he did not find the latter in Alabama.

The species is so distinct from all others of the genus that it can not be compared with any of them. The fact of finding four specimens at different places and all of practically the same size, shows that it is not likely to be the young of a larger species.

I take great pleasure in naming it after Hon. T. H. Aldrich so well-known by his work on the fossil mollusca of the South.

Type in my collection; the other specimens in the collections of Bryant Walker, John B. Henderson, Jr., and T. H. Aldrich.

POLYGYRA (STENOTREMA) BREVIPILA n. sp. Pl. V, figs. 1, 2, 3, 4.

Shell imperforate, globose, thin, light reddish-horn color; densely hirsute with fine, short hairs. Whorls five, those of the spire convex with a well-impressed suture; the body-whorl very convex, equally rounded above and below, deeply impressed in the umbilical region, abruptly deflected at the aperture and contracted behind the lip. Aperture transverse, narrow, widening anteriorly; parietal tooth large, strong but narrow, erect, with the sides nearly at right angles to the whorl and projecting beyond the lip, with which it is not parallel, but diverges for three-fourths of its length, when it is abraptly bent inward and downward, terminating opposite the second notch in the lip, its distal or outer extremity connected with the end of the peristome by a ridge of callus, the axial end sweeping around and "pocketing" the basal end of the lip; outer lip reflected back against the body-whorl, but with its sharp edge free from the whorl its entire length; very much thickened along its inner edge which forms a raised margin around the wide notch, and a well-developed tooth or fold beyond it, after which the margin is incurved around the outer extremity of the parietal tooth. Fulcrum long.

An average shell measures, diam. $8\frac{1}{2}$, alt. 6 mm.

The largest seen measures 9 x 6, and the smallest $7\frac{3}{4}$ x $5\frac{3}{4}$ mm.

Collected by Herbert H. Smith on Horseblock Mountain, Talladega Co., Ala., at an altitude of about 2,000 feet. On some of the U. S. Geological Survey sheets this mountain is called "Talladega," but "Horseblock" is the local name.

"The mountain sides, near the top, are littered, or rather piled with talus, big and little rocks; the shells are found almost invariably on the lower sides of these rocks, and generally they chose the biggest and heaviest; you turn over perhaps fifty to find one shell. They are obtained by sheer hard work." H. H. S.

This is one of the most striking species of the Stenotrema hirsuta group, and differs from all others in having a continuous free lip; the lip-notch is also of an entirely different type, as it will be noticed by a reference to the figures that the notch is not an indentation in the center of the lip, but the lip forms a curve from the columellar end to the highest part of the notch when it is suddenly deflected and bent forward. The parietal tooth differs in being more perpendicular to the body-whorl, not bent toward the lip, as in Stenotrema, where the tooth is very convex on its outer side and concave on the side next the lip, which it frequently overhangs. On looking into the aperture, through the notch, the whole of the long fulcrum can be plainly seen.

The only species with which this is likely to be confused is *P. altispira* Pils., but the resemblance, due to the wide notch in each case, is only superficial; for, as pointed out above, the notch is of a different type. The hairs are also much finer, closer and shorter, and the shape of the shell is entirely different.

Type in my collection; cotypes in the collections of the Academy of Natural Sciences, Phila., Bryant Walker, T. H. Aldrich and John B. Henderson, Jr.

Reference to Figures.

Figs. 1, 2, 3, 4. Polygyra (Stenotrema) brevipila Clapp.

Figs. 5, 6, 7. Polygyra (Stenotrema) altispira Pils. Roan Mtn., N. C., specimen 9 x 6 mm., size of type.

Figs. 8, 9, 10. Vitrea (Paravitrea) aldrichiana Chapp. Type. Fig. 11. Apparent shape of teeth of V. aldrichiana.

A NEW CARDIUM FROM PUGET SOUND.

BY WILLIAM HEALEY DALL.

Among the specimens of *Cardium* received from the Pacific coast during a series of years was occasionally a specimen with more numerous ribs, smoother surface and small, compact shell, which was doubtfully referred to the young of *C. californiense* Deshayes, better known under Gould's name of *blandum*. Recently in an endeavor